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28 FEB 1979, DoDD 5200.10 gp-4; 28 Feb 1979, DoDI 5230.24

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(8) OACS FOR (19) OT-RD-670004 CONFIDENTIAL DEPARTMENT OF THE ARMY OFFICE OF THE ADJUTANT GENERAL WASHINGTON, D.C. 20310 21 April 1967 AGAM-P (N) (17 Apr 67) FOR OT essons Learned, P5th Bettalion (AW) (SP) 2D Artillery with Bettery D (NG) 71st Artillery (Attached) Operational rept. for quarterly period anding 31 Jan 67. SEE DISTRIBUTION 1. Forwarded as inclosure is Operational Report - Lessons Learned, 5th Battalion (AW)(SP) 2D Artillery with Battery D (MG) 71st Artillery (Attached) for quarterly period ending 31 January 1967. Information contained in this report should be reviewed and evaluated by CDC in accordance with paragraph 6f of AR 1-19 and by CONARC in accordance with paragraph 6c and d of AR 1-19. Evaluations and corrective actions should be reported to ACSFOR OT within 90 days of receipt of covering letter. Information contained in this report is provided to the Commandants of the Service Schools to insure appropriate benefits in the future from lessons learned during current operations, and may be adapted Ofor use in developing training material. BY THE ORDER OF THE SECRETARY OF THE ARMY: tenneth G. Naickham APR 29 1968 Espiendee Lang Toda Ita translation to an Incl KENNETH G. WICKHAM
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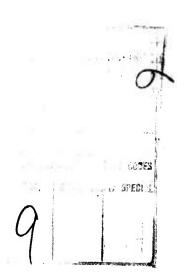
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DEFARTMENT OF THE ARMY

5TH BATTALION (AW)(SP) 2D ARTILLERY

WITH

BATTERY D (MG) 7IST ARTILLERY ATTACHED





OPERATIONAL REPORT-LESSONS LEARNED
QUARTERLY FOR PERIOD ENDING 31 JANUARY 1967
(RCS CS FOR-65)(U)

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DEPARTMENT OF THE ARMY
5TH BATTALION (AW)(SP) 2D ARTILLERY
BATTERY D (MG) 71ST ARTILLERY (ATTACHED)
APO Sen Francisco 96266

SUBJECT: Operational Report - Lessons Learned:
Quarterly for Period Ending 31 January 67.

27 February 1967

TO:

See Distribution

Section I: SIGNIFICANT ORGANIZATION ACTIVITIES

a. (C) General: This is an initial Operational Report-Lessons Learned. During the reporting period the unit was deployed to RVN from Ft Bliss, Texas. The battalion's advance party arrived at Qui Nhon in the II Corps Tactical Zone on 16 November 66 and was diverted to the III Corps Tactical Zone arriving 22 November 66. Unit equipment and personnel were diverted at sea with the main body arriving at Vung Tau on 27 November 66 and then airlifted to Bien Hoa Base. Unit equipment arrived at Saigon Port on 5 and 15 December 66. The battalion is assigned to US Army Vietnam to II Field Force Vietnam, with Operational Command II Field Force Artillery. Batteries were futher attached as follows: Battery A with 1st and 5th Sections D/71 attached to 1st Inf Div effective 17 December 66; Battery B with 2d and 6th Sections D/71 attached to 25th Inf Div effective 17 December 67; Battery C with 3rd Section D/71 attached to 1st Inf Div effective 4 January 67; Battery D with 4th Section D/71 attached to 25th Inf Div effective 4 January 67. Battalion Hqs and Hqs Battery remained at battalion base camp vic Long Binh (coor YT 127115) and previded personnel, administrative, and M-42 maintenance support for deployed batteries. Elements of the battalion supported the following operations: Cedar Falls, Lanikai, Fairfax, and Task Force Wallace.

b. Administration/Personnel

(1) Strength

5th Battalion (AW)(SP) 2d Artillery and D Battery (MG) 71st Artillery are organized under TOE 44-85F, and TOE 44-58T, respectively, with an authorized and assigned strength as of 31 January as follows:

	•	Authorized		Assigned			
		<u>OFF</u> 37	WO	EM	OFF	WO	EM
5th Bn,	2d Arty	37	3	658	37	3	668*
D Btry,	71st Arty	2 .	0	112	2	0	110

*The indicated overstrength is due to Transit Personnel assigned for RTS loss and casualties.

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(2) Gains and Losses

	Gains			Losses			
			<u>EM</u>	OFF	WO	<u>BM</u> 12	
5th Bn, 2d Arty	0	0	13	: Q	0	12	
D Btry, 71st Arty	0	0	2	0	0	1	

(3) Casualties during the period include:

Type	Number
Killed in action	2
Died of battle wounds	0
Wounded in action	10
Missing in action	0
Non-battle deaths	4

(4) Personnel Management

Replacements for unprogrammed losses (KIA & WIA) were not being received. The cause was determined to be that since this battalion is assigned to USARV, it was categorized as a combat support organization rather than a combat organization and therefore requistions for personnel would be handled as routine with priority being given to divisional units. This would result in combat squads remaining understrength until MOS qualified replacements were received in the command. The Replacement Section of USARV AG was informed:

- (a) That Units have been attached separately to the combat divisions and in most cases have been further detached down as far as separate section level and utilized as direct support elements for all types of ground combat missions.
- (b) That the loss of a single crewman seriously impairs the performance of the crew served weapon.
- (c) That since AW crewman (MOS 13F) replacements were not available in the command, and probably would not be available in the near future personnel of related MOS's could be effectively utilized; eg, llE armor crewman and 13A Field Artillery Crewmen.
- (d) Subsequently, replacements for unprogrammed losses have been redeived on a timely basis and under the direction of the Battalion S-3, received replacement training for a specific vacancy prior to departing for unit of assignment.

(5) Rest and Recuperation Program

The following out of country R & R trips were taken by members of this organization.

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Location	Nov	Dec	Jan
Bangkok	0	0	2
Hong Kong	0	0	3
Tekyo	0	0	4
Taipei	0	0	2
Penang	0	0	3
Hawaii	0	0	0
TOTAL	0	0	14

This headquarters R&R program operates within the allocations given to IIFFV.

(6) Morale:

The morale of the organization is high.

(7) Awards and Decorations

The following awards and decorations were presented during the

period of:

Bronze Star Medal	0
Purple Heart	12
Air Medal	0
Army Commendation Medal	0
Good Conduct Medal	0

(8) Discipline, Law and Orders

The following judicial and non-judicial actions more conducted during this reporting period:

Article	15	30
Summary	Court-Martial	0
Special	Court-Martial	0
General	Court-Martial	0

(9) Safety: The battalion sustained four vehicle accidents during this period. The first accident occured on 20 December 1966 at 0900 hours in Ho Nai Willage, Bien Hoa province, Highway 1A. A Vietnamese riding a bicycle made an improper turn and failed to yield right of way, thereby colliding with a 22 ton truck driven by an individual from this unit. Investigation revealed Vietnamese was at fault. No damage sustained by 2 ton truck. The second accident occured on 2 January 1967 at 0805 hours at coordinates YT 140118. An M-42 was in convoy when the vehicle left the road and overturned in a deep ditch. The assistant platoon leader and driver managed to excape through the commander's and driwer's hatch. Four crew members trapped in turret of vehicle were killed. The M-42 burned and was a complete loss. The third accident occured on 4 January 1967 at 0900 at intersection of highway 15 and entrance to 185th Tech Supply Compound, Long Binh. A Vietnamese riding a motor bike ran into the right side of 22 ton truck as the truck was making a right hand turn. Investigation reveled the Vietnamese was at fault. The 2 ton truck did not sustain any damage. The fourth accident occurred on 4 January 1967 at Cu Chi. An M42 side swiped the rear of a Vietnamese Army 3/4 ton truck that was parked on the side of a road causing the 3/4 ton truck to go forward and strike a Vietnamese child.

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The M-42 sustained no damage. A driver safety program is in existence within the Battalion and the provisions have been reembasized with particular attention to driving conditions in RVN.

- (10) Civil Affairs: The Medical Civic Action Program (MEDCAP) was initiated by this headquarters in December 1966. The program consists of weekly visits to Thanh Hoa by medically qualified personnel to provide necessary medical care to Vietnamese civilians. Since this program was initiated a total of 800 patients have been treated.
 - c.(C) Operation/Intelligence
 - (1) Missions

The firing elements of the battalion were used extensively in a ground support role during the reporting period. No air defense mission has been stated. Missions covered a wide varity, from perimeter occurity to particle cavalry operations. 1955 squads were airlifted, helicopter lifted and praced on river rafts. The M42, weighing 25 tons, is road bound except on very firm terrain. The M55, mounted on a 2½ ton truck, is almost completely road bound. Off loaded, the M55 has been moved by helicopter airlift thereby increasing its flexablity. AW units have been employed in offensive operations in the following missions:

- (a) Reconnaissance by fire.
- (b) Preparatory and covering fires.
- (c) Blocking force.
- (d) Flank security.
- (e) Mobile reserve.
- (f) Search and Destroy in an assigned TAOR (When attached to Armored Cavalry.)

IN units have been employed in defensive operation in the following missions:

- (a) Primary perimeter security forces.
- (c) Mobile reaction/reserve forces.

AW units have been employed in support operations in the following missions:

- (a) Convoy escort and security.
 - (b) Road clearing operations.



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(2) : Operations/Intelligence Functions

The operations and intelligence activities of the battalion have not paralleled the activities that the battalion was trained for. Training emphasized an air defense mission with the battalion playing an active part in the planning and execution of such a mission. To the contrary, in RVN all firing batteries have been attached to other commands and are immediately responsive to the supported unit. The battalion operations and intelligence function is one of coordination between major supported commands, advising major supported commands, and keeping the commander informed of the current tactical situation as it pertains to elements of the battalion and of any problems that exist that would affect the battalion elements capability to satisfactorily perform their mission.

(3) ... Liaison Requirements

The battalion TO&E provides one liaison officer. This is not considered adequate for a unit that currently has elements attached to two divisions with plans for three. This creates a requirement for a minimum of two and a maximum of four personnel involved in liaision type activities. This battalion has provided each supported unit a INC to actes an Air Tefense Artillery Automatic Weapons Staff Officer and Advisor. He relieves the battery commander of much of the staff burden and administration that exists with the supported command while at the same time providing a valuable communications link betwoen batteries and the parent battalion. In one case the INO is the Bn Asst S-3 and in the other it is the MG Battery Commander. When the third INO is required, the TO&E INO will fill the job. The battalion S-3 effects any required liaison with higher headquarters.

(4) Training

Upon arrival in country and prior to becoming operational the battalion conducted refresher training in the ground support role for all elements of the battalion and initial training in weapons that have been made available in RVN but were not available during the training cycle, i.e. Claynore mines, M79 gronado launcher, etc. To date the replacements received by the battalion have not been exposed to the M-42 or the training required for the successful air defense engagement or ground support mission. Replacements have been common specialist or basic artillery (13A) MOS's as opposed to the trained AW Crewman (13F). The battalion has provided some training prior to sending the replacements to their batteries. This training has been directed toward providing the replacement sufficient knowledge so as to allow him to contribute toward the squads ability to successfully accomplish its mission. A training program is being prepared to accommodate the large number of officers and men that will arrive as replacements when the battalion rotation starts in September. Section II, Part 2 contains recommendations for future training.

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d. (U) Maintenance

- (1) Due to the critical lack of a backup maintenance capability (DS and GS) both in parts and knowledge, the battalion maintenance section has played an important role in the maintenance support of the detached batteries. Battalion contact teams have been formed to provide M-42 maintenance support to the battery field location when maintenance services are required beyond their capabilities. Helicopters have been used to deliver parts and maintenance personnel to the field where maintenance was performed on the spet, there-by assuring minimum down time. The centralized maintenance scheme was adopted as parts are not available at this time to provide four separate ASL's to separate DS units. A centralized parts control was required and will continue to be required as long as the shortage exists. The M-42 maintenance talent and experience in the III CTZ is presently within the maintenance section of the battalion and to divide this experience and resources would probably result in substandard maintenance and excessive equipment down time.
- (2) This battalion has sustained three M42 combat losses thru mine damage. As of the date of preparation, no date has been forecast of when replacement tracks will be recieved. In the interim, three of the battalions four float tracks have been issued.
- (3) The chart shown as figure 1 is a comparative summary of mining indicents and major parts usage within the framework of employment concepts. Two batteries were used as maneuver elements, with the armor cavalry. Turing the same period the other two batteries were used as fire support under the control of division artillery.

Armor Cavalry	Mines	Engines	Transmissions	Fii%l Driver	Road-Whoels
Mission	3	5	4	2	
Fire Support Mission	1	1	0 (Figure 1)	0	10

Section II, Part 1 - Observation/Lessons Learned

(U) M-55 Helicopter Lift (U)

Item: (U) Malfunction of the M-55 during and after helicopter lift.

Discussion: (U) In several instances malfunction of the M-55 has been experienced as a result of helicopter lift. During the lift sequence the fifting sling has become tangled around one of the barrels of the cal 50 machine gum and as the mount is lifted the barrel sustains the weight of the mount causing damage to the gum and the mount elevation mechanism. Further, on occasion it has been necessary after arrival in the landing zone to field strip and clean the cal 50 machine gum before firing. This is caused by excessive sand and debris forced into the barrel and receiver group by the Chinook rotor wash.

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Observation: (U) To prevent future damage and malfunctions to the cal 50 machine gun and M-55 mount during helicopter lift, the cal 50 gun barrels will be removed and the receiver group will be covered with a suitable material such as burlap or plastic when prepared for helicopter lift. Barrels will be carried as internal leads.

(U) Materiel Shortcomings (U)

Item: (U) Certain material shortcomings have come to light during the period covered.

Discussion: (U) During the initial operations supported the battalion certain material shortcomings came to light while in ground support roles. These problems are peculiar to ground support missions and had not been experienced while undergoing training.

a. M-42's are being utilized as tanks. In going throughwest's and jungle during cleaning operations, damage to the vehicles suspension system, and hull has been sustained. Increased wear on the transmission was been experienced from the extended driving in low range while on jungle clearing, and search and dustrey type operations. Although these problems are also apparent in tanks to a lesser extent, the criticality of parts for M-42 makes the damage caused more acute for the pattalion.

b. The M-60 machine gun on the M-42 is in a location which, when fired, interfered with the azimuth gun pointer and right cannoneer. Relocating it to the rear may correct the problem. This headquarters is studying the problem and possible solutions.

c. Several azimuth indicators have been damaged by annunition clips being ejected by the automatic loader. This unit is fabricating an azimuth indicator cover which will provide protection and still allow its use.

d. The primary material shortcoming with the M-55 is mobility and the lack of a firing capability to the front when mounted on the 2½ ton truck. This unit has mounted M-60 machine guns immediately to the rear of the cab with the capability of firing over the cab to compensate for this shortcoming Mobility is discussed in Section II.

Observation: Elements of the battalion can accomplish their assigned missions however the points above should be considered during the planning and execution of operations envolving M-42's and M-55's.

(U) Automatic Weapons Employment Techniques in RVN (U)

Item: (U) During the initial operations employment techniques have been developed that differ from those experienced during training.

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Discussion: (U) The training program of the battalion was weighted toward on air defense mission. Ground support training was conducted but not to the extent of operational employment experienced to date in RVN. As a result of the new experiences in RVN, new techniques have been developed and practiced.

a. The /Orm is not an area saturation weapon. It is a point target direct fire weapon that can be used in a saturation or indirect fire mission only when an area target exists or when mask and fields of fire are such to allow its use. Ammunition expended on such missions will generally result in a waste. The M-42 with its inherent high rate of fire and immediate response to the supported unit gives excellent results in direct fire support. When coupled with a night target acquisition device the responsiveness and effectiveness is enhanced.

b. Range cards are a must at each firing positions, primary alternate, occupied or not. In addition to the normal information action had been a range card, the minimum quadrant to clear mask should also be noted. Animum limits should be marked with ground stakes or chalk marks on the azimuth ring for the M-55 and by grease pencil marks on the azimuth indicator of the M-42.

c. When developing fields of fire for the M-42, consideration must be given to the fuzing system of the projectile. With the quick point contact fuze, the jungle penatration capability is very limited. The tracer burn out precludes maximum effectiveness for targets at ranges beyond 3500 meters.

d. Firing tables are necessary for both M-42's and M-55's. It is highly desirable to extract the ground support or surface firing portion of the tabular firing tables and convert them from yards to the metric system.

Chservation: (U) A general lack of familiarity with the M-42 and M-55 exists where elements have been initially attached. This may also apply to replacements that are assigned to the battalion. New techniques and tactical considerations should recieve the widest possible dissemination to concerned personnel to insure maximum effective employment of the weapon systems.

- Section II Part 2 - Recommendations

A (C) Limitations of the M-42 Twin 40mm

The terrain in the III CTZ and the techniques of maneuver employed in Vietnam creates a imight limiting environment for the utilization of the M-42. Because of the heavy jungle conopy and undergrowth in many parts of the III CTZ, not only the movement but the firing capability of the M-42 is seriously impaired. Since the ammunition used is point detonating, it cannot be fired through foliage close to the gun without extreme crew safety hazard, and cannot have substantial effect on any target screened by foliage When clear fields of fire are available, supported tactical commanders are sometimes reluctant to allow the M-42 to fire because the convergent schemes of maneuver habitually practiced in Vietnam. This when coupled with the flat trajectory and long range of the M-42, will often place friendly troops in the field of fire.

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RECOMMENDATION:

That a 40mm round be developed for the M-42 which is capable of penetrating dense foliage and whose lethality is spent after a range of 750 to 1000 meters. A cannister or flechete type munition would suffice. In the absence of development of such a round, serious consideration must be given to the afore mentioned limitations of the 1-42 during employment of the weapon in Vietnam.

P (U) Casoline Operated Chain Saws

Elements of the battalion have frequently taken up defensive positions on the edge of for in the middle of rubber plantations or other areas of dense vegatation and foliage. Fields of fire must litterally be chopped out or bulldezed out in these areas. M-42's have been used to push down small trees and vegatation, however this technique has caused unnecessary damage to the suspension system, mank hull, and fenders. When chain saws are available, fields of fire may be cut with out damage to the M-42 and the weapon can continue its fire support mission without interruption.

MECOMMENDATION:

That gasoline operated chain saws be included in battery TO&E or MTO & E.

C (U) Training

During the basic unit and advanced unit training cycle of this battalion the training program was weighted toward an air defense mission. This was due to the lack of guidande as to future missions and the fact that the ATT was weighted toward an air defense mission. Individual training prior to activation had also been weighted toward air defanse. The following areas of instruction should be considered when training for deployments to RVN.

- a. Automatic Weapons Training Programs for NCO's and lower grade EM being held at service school or training centers, in addition to the material currently presented should include:
 - (1) M-42 intercom characteristics and communication techniques.
 - (2) Air and helicopter lift techniques for M-55.
- (3) Night firing and surface firing techniques to include firing on the move and reconnaissance by fire.
 - (4) Vehicle recovery techniques.
 - (5) Claymore mine characteristics and installation techniques.
 - (6) Use of trip flare and their proper installation.
 - (7) Map reading using the 1:25,000 PICTO map.

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b. In addition to the above officer career courses at the U.S. Army Air Defense School should include combined arms training which illustrates the Automatic Weapons Battalion the varity of roles mentioned in Section I and under control of units of the artillery, armor, and infantry.

RECOMMENDATION:

That prior to unit training, deploying units be given guidance on which to develope their training program and that individual replacements for W SP battalions be trained in the light of current employment concepts and techniques prevalent in RVN.

D (U) Terget Acquisition

Elements of this battalion are habitually given extensive night perimeter security missions. At present, the target acquisition capability does not parallel the range capability of either the M-42 or the M-55. The addition of a starlight scope for each M-42 and a starlight scope and set of binoculars for each M-55 would make the M-42 and the M-55 a formidable night perimeter security weapons.

RECOMMENDATION:

That an improved target acquisition capability be made a part of the TO&E or MTO&E.

E (U) Maintenance

There is an ever decreasing quantity of spare parts. Without proper and timely maintenance, the spare parts problem will become even more acute. Sufficient standdown and maintenance time must be allotted between and during operations to insure combat readiness and preclude an unnecessary expenditure of parts thru breakdowns that could have been avoided by preventive maintenance. Typical of the problems encountered are:

- (1) Road whoels must have oil changed more often than indicated in the appropriate ranual. Laterite works its way into the seals causing more than normal wear if not changed weekly.
- (2) Track pads have shown excessive wear. While this is an area that cannot be precluded by preventive maintenance, it is a point for consideration. When elements with worn pads return to an area where asphalt roads exists, time will have to be allotted to replace the pads or the roads will suffer the damage caused by the metal cleats.

RECOMMENDATION:

That maintenance operations be carefully considered and planned along with tactical operations.

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F (U) Commara and Control

Under the present TO&E all command and control vehicles in the firing but eries are whiled webicles. Experience throughout the reporting period has shown that those the lad achieve can not been up with track vehicles. In many areas where the bratalion has executed it is impossible to move by wheeled vehicle. Plateon seature and betterm commanders have occasionally used M-42's as command vehicles. The which is not actidization for recommissance because of its velicities of any lack of any large erose country mobility. The W-42 is equipped with the AM/VII 46 redictables is now adequate for commander and control.

RECOMMENDATION:

That each battery headquarters, and each AM platoon headquarters be authorized a light-tracked personnel carrier with an AN/VRC 12 radio for tactical reconneissance and movement.

G (U) Logistics:

Current practices exercised during POM created logistical problems upon arrival in country. The current procedures are based upon the premise the RED TAT equipment is immediately available to troops when they arrive. Such is not the case. Due to crowded port conditions RED TAT is not available for as many as five or ten days after the unit has arrived in country. This means that those items required for troop living i.e. mess equipment, water containers, tentage, cots, etc., must be obtained from already short local resources. Power generating equipment within the TO&E is adequate for TO&E equipment but inadequate to power the electrical requirement imposed when establishing a semi-permanent base camp. Adequate power generating equipment is required prior to arrival of main body troop elements to insure that refrigeration and lights are available.

RECOIMENDATION:

That communications between deploying unit and host unit be established a minimum of 90 days prior to departure from CONUS in order to provide guidance on which supply personnel can base POM procedures. Essential troop living requirements should be shipped YELLOW TAT in order to provide advanced party personnel time and resources to establish temporary base for main body troops. Adequate power generating equipment should be included.

h. (U) M-55 Mobility:

The M-55 mounted on the $2\frac{1}{2}$ ton truck has excellent road nobility but is extremely limited in cross-country movement. For enryoy security missions the truck mounted M-55 is adequate. For support of offensive operations better mobility is required. Helicopter lifting the dismounted M-55 enables the weapon to reach all areas of operations, but once on the ground it is essentially immobile.

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RECOMMENDATION:

That an M-55 be mounted on a full tracked vehicle of the M-113 class and tested in country to evaluate the significance of the resulting increase in mobility.

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JOHN D. LEWIS LTC, Artillery Commanding

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AVFB-FAC (8 Mar 67) 1st Ind SUBJECT: Operational Report - Lessons Learned, Quarterly for Period Ending 31 January 1967 (RCS-CSFOR-65) (U)

DA, HQ, II FFORCEW Arty, APO 96266 28 MAR 1967

TO: Assistant Chief of Staff for Force Development, Department of the Army, Washington, D. C. 20310

- 1. (U) The quarterly report submitted by the 5th Battalion (Automatic Veapons) (Self Propelled), 2d Artillery (Reinforced) is considered adequate.
 - 2. (C) Reference Section II, Part II:
- a. Paragraph A; concur. This headquarters included a similar recommendation in its last Operational Report. The full potential of the M-42 employed in ground support will not be realized until a suitable 40mm round is developed.
- b. Paragraphs B, D and F; concur. Battalion MTOE is now in preparation and will incorporate requests for this equipment.
- c. Paragraph C; concur. Any air defense automatic weapons battalion employed in a counterinsurgency environment can expect to encounter ground support missions. Training programs must be developed accordingly.
 - d. Paragraph E; concur.
- e. Paragraph G; concur. This headquarters habitually establishes communication with in-coming II FFORCEV Arty units well in advance of their departure from CONUS and provides information relative to FOM procedures. The 5/2d Arty was diverted to II FTORCEV by COMUSMACV after its departure from CONUS. Communication could not be established until its advance party arrived in RVII.
- f. Paragraph H; concur. It is understood that a study is being conducted by USARV to determine the feasibility of such a test.

W.D. Criting was.
W. D. CRITTHPHRESER Jr.
Brigadier Comeral, USA
Commanding



